

fection should be carried out. It is, of course, almost as absurd to manipulate a leg because of pain down the back of it, when the pain is due to pressure on one of the nerve roots above. It is not only futile as a therapeutic procedure, but it also helps to mask the true cause of the pain and delays investigation leading to proper diagnosis and appropriate treatment. For these reasons, the procedure known as "stretching the sciatic," in the author's opinion, should be completely dropped as a therapeutic modality. In addition to an almost universal contraindication, it is extremely doubtful if the sciatic nerve is stretched by the procedure, and if it is stretched, whether it makes any difference.

Manipulation is also contraindicated in many definitely diagnosed conditions, such as fractures which are not completely healed, acute subacromial bursitis, cases of which undoubtedly have been labeled neuritis of the shoulder, acute and chronic arthritis, and others. In instances of fibrous ankylosis of joints, whether the result of a cured arthritis, or of prolonged immobilization during the healing of a fracture, this modality may be used, but only with extreme caution, lest a fracture result. Hence, it seems wise to use the modality of manipulation only occasionally, rather than almost constantly, as is done by the chiropractors and osteopaths.

In conclusion, the most outstanding contraindication for manipulation is failure of diagnosis, or incorrect diagnosis. When the condition under treatment is known to be a fibrous ankylosis, and almost only then, manipulation may be used with safety and with benefit.

3135 Webster Street.

ROBERT F. LEGGE,
Oakland.

Explains Means of Preventing the Reactions From Vein Feedings.—Means of preventing the fever and chills which may follow intravenous or vein feedings are explained by Charles M. Nelson, M.D., Richmond, Virginia, in *The Journal of the American Medical Association* for April 8.

Although these reactions have been commonly attributed to various causes, Doctor Nelson says that experiments show the real factor is bacterial contamination of the distilled water used in the solutions for these feedings.

Boiling the water to be used for six hours will destroy the fever-producing agent. Autoclaving (sterilization under steam pressure) for three or four hours will also destroy it. The usual sterilization period tends to enhance its growth.

Even when sterilized by the usual method, the tubing and flasks used in giving intravenous feedings may sometimes cause fevers, as the fever-producing factor may have lodged in them previously while a solution (not autoclaved) was passing through the apparatus.

Doctor Nelson points out that "any organism that is capable of elaborating a fever-producing substance, which thrives at room temperature and which is a common contaminant, may be the offender. No organism will ever be the offender if the distilled water is taken directly from the still—most storage tanks are contaminated by backflow of air when the still cools—and autoclaved immediately."

People who are always taking care of their health are like misers, who are hoarding up a treasure which they have never spirit enough to enjoy.—Sterne.

ORIGINAL ARTICLES

MEDICAL TRENDS*

ADDRESS OF THE PRESIDENT

By WILLIAM W. ROBLEE, M.D.
Riverside

ANOTHER year in the history of the California Medical Association has come and gone. The by-laws provide that, at the annual meeting, the President shall deliver an address which shall summarize for its members the events of the past year and the problems unsolved or in prospect. Your President presents his report in fulfillment of that mandate.

This has been a very busy and eventful year in organized medicine. Administrative, political, economic, and scientific problems have engaged the attention of your officers, committeemen, the House of Delegates and membership to a larger degree than heretofore.

INCREASING COMPLEXITY OF MEDICAL PROBLEMS

Each year the problems become more complex. The reasons therefor extend far out into the fabric of civilization. Medicine is but one part of this social picture; and much as some of us may wish for a continuation of the *status quo*, such a policy is impossible. The science and art of medicine are not static, its social and economic features are also subject to evolutionary change. Our thought and action must conform to them or we shall go the way of the dinosaur, and the saber-tooth tiger. They were physically powerful, but lack of adaptability to changed conditions eliminated them.

HISTORICAL BACKGROUND

A brief historical résumé of some of the elements of American life that have brought about present-day conditions and problems may profit us.

The American continent was settled by a sturdy, independent group of citizens. They were adventurous spirits who desired freedom from oppression and an opportunity to develop along independent lines. There was room for all on a continent rich in natural resources. Pioneer conditions were not easy and the fit who survived became, because of inheritance and the struggle for existence, a hardy race of independent thinkers, in which the family was the social unit and the family cared for its own. In comparison with our cities theirs were very small towns, life was largely rural, social contacts were confined to small villages and neighborhood gatherings. Life was simple, needs were few and largely provided by the products of the farm.

AUTHOR'S RECOLLECTIONS

My memory goes back to grandfather's pioneer farm in northern Wisconsin and of seeing him cut wheat with a scythe, thresh it with a flail and

* Address of the President. Given at the first general meeting of the sixty-eighth annual session of the California Medical Association, May 1-4, 1939, Del Monte.

take it to a grist mill where the miller ground it for a share of the flour. I have seen grandmother at the spinning wheel, spinning yarn from wool raised on their own sheep, then knitting it into various protective garments. The doctor made his calls in a well-weathered phaeton or on horseback, and he not infrequently had to face a blizzard on foot. His financial receipts were small and often in kind; but he was rich in the confidence and affection of the people he served.

TWO SCHOOLS OF ECONOMIC THOUGHT

Immediately preceding and following the Revolutionary War two great schools of economic thought developed in this country. One, headed by Alexander Hamilton, advocated as rapid a development of industry as possible and a restricted electorate veering toward a monarchy. The other, with Thomas Jefferson as its spokesman, advocated a nation of small rural land holders, a more liberal electoral franchise, and a trust in the common people. There were many other lines of cleavage between the economic thought of these men which lack of time does not permit us to consider in detail.

Out of the very strenuous debates of that period, which were serious enough to result in the death of Hamilton at the hands of Aaron Burr, there developed the American concept of government which, while providing for unity of national life, conserves the highest degree of freedom for the individual.

SUBSEQUENT DEVELOPMENTS

In the meantime the country was being settled by immigrants from northern Europe who rapidly became splendid American citizens. Take the Irish, for example; what would the country have done for policemen, railroad section bosses or politicians if the Irish had remained in Ireland? Its Friendly Sons of St. Patrick, organized before the Revolutionary War and of which George Washington was happy to become an honorary member, has until this day supplied patriotic leadership in every time of crisis affecting our nation. The English, Dutch, French, and Scandinavians were equally splendid additions to our citizenship. Every man and woman worked, dependency was negligible, and when it did occur the family cared for its own. These conditions obtained until after the Civil War. In the 80's and 90's the picture underwent a decided change. By the beginning of the present century good Government land was about exhausted and the population became less mobile. Yankee inventiveness resulted in the development of a "machine age," whereby hand labor became less in demand and population was concentrated in industrial areas. The capitalist owner of the machines found that he could increase his profits greatly by securing a supply of cheap labor which was imported in great quantities, largely from southern European countries.

Big business was ruthless in competition, and its brutal exploitation of the workers became of great economic and social concern. The great organizations of capital were gradually counterbalanced by the slow, but steady organization of the workers into trade-unions with resultant improvement in

labor conditions, often arrived at after serious strife and occasional bloodshed.

The center of political and economic life shifted to the great cities and factory centers and the farmer ceased being the controlling force in the nation. During these same years great discoveries were made in the realm of theoretical and applied science, and their application to our lives wrought profound changes in them. I have but to mention the changes in transportation and communication within the life of most of those here today to illustrate the point. Material standards of living were elevated and American citizens became the best fed, housed and clothed, educated and amused, that the world has ever known. The trite remark, that the "luxuries of our forefathers have become our necessities," certainly holds good.

RÔLES OF PREVENTIVE AND CURATIVE MEDICINE

Medicine, both preventive and curative, partook of this great renaissance. The great plagues of the past no longer mow down our citizens; infant and maternal mortality have been greatly lowered; specific remedies, such as quinin, salvarsan, sulfanilamide, insulin, and the curative and prophylactic sera, have been discovered. The advances in surgery have been unparalleled, and the psychiatrists take our minds apart, polish up the wheels and return many victims of mental disease to useful citizenship.

Of the three great agencies that limited population—famine, pestilence, and war—two are largely under control, and only war is functioning in the same old efficient manner.

Hospital care for sick people has been established with resultant saving of many lives. Few of the younger men in the profession realize that many of their older colleagues, who are their competitors, went through the horse-and-buggy, kitchen-table stage of medicine and surgery.

The factors enumerated have doubled the life expectancy in the past fifty years and the population of the world in the last one hundred years—a greater increase than in the preceding two thousand years.

We were geared in territory, in population, in business and in ideas to a continuously expanding world. There were wars which consolidated the existing system, but none of which disrupted it. The normal state was peace. Democracy had arrived in the advanced countries and appeared on the way elsewhere. Everything had grown so fast during our lives and that of our fathers that we forgot how small the earth was and imagined our particular sort of progress would go on forever. No one doubted that the able and energetic man could get ahead, nor questioned the desirability of his free opportunity to do so. We thought that we had arrived at the goal of human progress and that nothing remained but to improve, on the same lines, the job already done. It was a generation satisfied with itself and the world.

HOW AND WHEN THE CENTURY CLOSED

The century closed, not on its chronological date, December 31, 1900, but fourteen years later when

the world with which we had been so satisfied cracked to pieces, never to be restored. Since then, to be sure, there has been progress even of the old sort, and it is not over. But we have discovered that the earth is a limited planet on which there will never be room to do again the spectacular expansions which the nineteenth century saw. However, out of this time of confusion must come something constructive. It will not be the restoration of the nineteenth century, much as some of us would like it. But neither will there be discarded the truths, a repudiation of the standards, the rejection of the experience which it and its predecessors bequeathed. Medicine has, and must continue to share in the adjustments which social evolution has forced upon the modern world.

Many factors enter into the picture of present-day civilization as it exists in this country, but those enumerated will suffice to illustrate the points that I desire to discuss with you today.

PRESENT-DAY PROBLEMS

First: Famine and pestilence having been abolished, mothers and babies conserved, generally better housing and food made available, preventive and curative medicine and surgery advanced, what has been the result? It is perfectly obvious that there has been a greatly increased number of people who live to old age.

Second: Industry has no place for the elderly citizen. A man beyond forty or forty-five has a hard time securing a job or holding it after he gets it.

Third: Because of war, dictatorial restriction, tariff walls and competition developing in other countries and dire want therein, commerce has been greatly dislocated. The prunes of Santa Clara, the peaches of San Joaquin, the oranges of the South, no longer find a ready market in other countries. Economic conditions confronting our great agricultural population have been very trying for the past several years. Many of our usually solvent independent farmers have had great difficulty in securing sufficient return from their crops to remain solvent. The dread of the unusual expense entailed by catastrophic illness hangs heavily over them. Your Council and special committees have had several conferences with the State Farm Bureau leaders. They are a splendid group of citizens, and we were able to acquire a knowledge of our mutual problems that will be invaluable.

They desire an insurance program and a moderate liberalization of admissions to the county hospitals. They frankly say that unless we present a helpful program they will consider a connection with a private insurance group and join with those who advocate county hospital admission on as free a basis as are the public schools for the education of their children.

These factors and many others, some of the most serious of which are domestic and political, combine to cause serious unemployment. About 10 per cent of our citizens are without jobs and their dependents suffer with them.

The machine age is upon us, hand labor will be continuously less in demand. It is perfectly obvious

that social and economic life must be readjusted to these changed conditions. The basic needs of mankind, viz., food, shelter, clothing, and care for the sick and disabled—must be supplied. A study of any of these factors must take them all into consideration. Many such studies have been financed and made by philanthropic foundations, the Federal Government, and special interests.

APPLICATION TO CALIFORNIA

But we must narrow our consideration to our own State and the problems of sickness herein. We note the studies made by the "Committee on the Costs of Medical Care," under the chairmanship of Dr. Ray Lyman Wilbur, in 1929 and 1930; the study made by Margaret Klem in 1935 for the State Relief Administration; our own economic survey in 1935-1936; the survey now being completed by the SRA, and various special studies made by the Farm Bureau, organized labor, etc.

It is to be noted that none of these studies were made by doctors of medicine, but all were made by lay social workers. Our own survey was supervised by a university economist, the field work being done by untrained State relief workers, a mistake that we have had cause to regret. None but experienced doctors of medicine can accurately evaluate a sickness or disability problem. This has been abundantly proved by our own experience. The basic conclusion reached by the lay surveys is that at least one-third of our population is without adequate medical care. You and I know that such a condition does not exist in this State. I have visited every county society in California and I have put the question to our members individually and collectively, and the reply has been invariably that any person applying to a doctor of medicine for medical care either will receive it at once or be directed to where it can be secured.

The State Medical Society of New Jersey has made a survey by its own members, and they have reached the conclusion that not over 5 per cent of their people are not receiving adequate care and that the lack is largely of their own choosing, the facilities being available if called for. Organized medicine is fully conscious of the medical needs of the public, and is willing and able to meet these needs, and has been doing so at the rate of one million dollars of free service per day during these years of special stress!

CONCLUSIONS OF THE LAY ECONOMISTS

The major conclusions reached by the lay economists and socialists are three in number:

First: That one-third of the people are without adequate medical care.

Second: That some form of sickness insurance under governmental regulation is the answer.

Third: That this must be compulsory.

These conclusions have been publicized from the platform, the press, the "halls of learning," and legislatures, until a large portion of the population believes them to be true. Any statement can be iterated and reiterated often and vociferously enough to cause its acceptance by many people, and in fact very many of our people are thinking and

saying that they know better than the doctors how medicine should be practiced. They do not question the doctors' ability to treat the sick, but they do question the *modus operandi* by which his skill shall be available.

ANALYSIS OF THE CONTENTIONS

Of the three basic contentions just enumerated the medical profession is in hearty accord with the initial clause of the second, namely, that an application of the insurance principle to the hazard of catastrophic illness is a proper measure, and organized medicine has laid down a set of principles to guide any such endeavor. These principles safeguard both the patient and his physician. They provide for the free choice of physician, no interference with medical practice by a political agency or organization for profit, and no compulsion. The aim is to provide adequate medical care for all the people by the physician of their choice at a price that is fair to all the people, including those who render the service.

PROVISION FOR MEDICAL CARE ON A PERIODIC PAYMENT BASIS

The principle that a person in time of physical and financial competence may provide on a budget basis, by fractional payment, for catastrophic need, is sound, and to be encouraged. This common-sense application of basic principles, however, does not satisfy the agitators for radical socialistic treatment of the problem. A goodly number of persons high in the councils of the State, both nationally and in our own State, and even a small minority of our professional colleagues, will not be satisfied with anything that is short of compelling regimentation of both the doctor and his patient. They would provide for another European experiment in social economics which would be dictatorial, un-American, political, regimental, and entirely beyond any guidance or control by the doctors of medicine who are best fitted by experience to handle the problem. This is a far cry from the principles enumerated and fought for by our forefathers, to which I called attention early in this address. They fought compulsion, regimentation and unjust taxation in every way possible. Are we, then, their sons, to flaunt their example and sit supinely by while these things are forced upon us?

The inherent right of both the patient and doctor for protection is largely ignored by the economists, social workers, and politicians in the plans they evolve. Medicine cannot be practiced on a mass-production basis. No compulsory panel system can assure the individual that careful attention to which the American people have been accustomed.

RÔLE OF THE PHYSICIAN

The physician has also been vested by custom and the State with certain rights that cannot lightly be cast aside. He has, in perfect good faith under the law of the land, spent years of time and at least \$15,000 in cash in acquiring the necessary training for his professional work. Medicine is big business. The ten thousand doctors of medicine registered in this State spent not less than \$150,000,000 in

their preparation for service. They have families depending on them. The State has licensed them to conduct their professional work in competition with their fellows, each man making a success or failure in accordance with his capacity and worth. This is the American way, and we insist upon its continuance.

STUDIES BY ORGANIZED MEDICINE

The officers and committeemen to whom you have given authority to care for your interests have not been derelict in their duty. The American Medical Association and our own State Association both felt impelled to call special sessions of their Houses of Delegates for the consideration of pressing economic questions involving our profession. At these sessions the recommendations of your officers and committees were received, policies were debated and conclusions arrived at with which you are familiar.

In this connection I quote as follows from the annual report of the Director of the Bureau of Economics of the American Medical Association:

"Interest in Medical Care Plans.—Since the special session of the House of Delegates in September, 1938, some forty or more medical societies have sought assistance in the study and development of forms of medical service suited to their respective localities.

"The growing interest of medical societies and of the public in special arrangements for organizing payments for medical services can be almost directly measured by the increasing number of experiments conducted by state and county medical societies. In 1934 about 150 plans for distribution of medical services were being conducted by medical societies in various communities in the United States. By 1935 this number had grown to 200, by 1936 to 250, by 1937 to 350, and at present the number is in excess of 450.

"The existence of these organizational plans for the delivery of medical services is a direct refutation of the assertions that have been made concerning the unwillingness of the medical profession to tolerate change in the arrangement for payment for medical services. As a matter of fact, medical societies throughout the United States have in operation more experiments with new plans for the distribution of medical services than all the proponents of group payment plans have ever proposed."

CALIFORNIA PHYSICIANS' SERVICE

We, in California, have responded to the call and are rapidly perfecting a plan whereby prepayment of medical care on a coöperative basis can be secured.

The organization of our Physicians' Service corporation has entailed a tremendous amount of work on the part of the Council, the legal department, the Board of Trustees, of the corporation, and the special committees. We owe them our heartfelt appreciation. Such a state-wide effort has not heretofore been undertaken, and its progress is being observed with keen interest throughout the nation. It is an honest effort to supply, under

proper auspices, a service of which the people at large feel the need. This effort will settle the question as to whether the public generally will patronize such a service. We believe it to be in line with modern economic thought.

The question has been asked repeatedly why was such a plan not offered ere this? The answer is that, in the opinion of your committees which have had this study in hand, neither the public nor the profession were ready for it. This year the various interested lines have converged both within and without the profession, and the time seems ripe for such a social experiment. The details, up to this date, will be supplied by the speakers who follow me on this program.

OTHER POLITICAL PROBLEMS

Our political interests have been this year very important, as there has been both a general state election and a session of the Legislature to keep under observation. Under the guidance of our legislative and special committee, the antivivisection initiative was decisively defeated. There is the usual collection of proposed laws in the Legislature which interest us. Some of them are very vicious, and they are demanding the close attention of our Legislative Committee. Any calls for assistance from the membership at large that may be issued must, as in the past, be loyally responded to.

The next regular or special state election will see other initiative measures qualified for the ballot. We hope to have a Basic Science measure for approval of the electorate at that time. These measures, both good and bad, will require our energetic attention.

SCIENTIFIC ACTIVITIES

Our scientific work is being well handled. The County Society programs are uniformly excellent, the state-wide postgraduate sessions are justifying the work of the committee, the program arranged for this annual session is unusually attractive, and we trust that those in attendance will take part freely in the discussions.

MEMBERSHIP

Membership: Our membership for the year 1938 reached an all-time high. We certified 6,219 members in good standing to the American Medical Association for that year. I would urge continued vigilance on the part of the secretaries of county units in order that all eligible, desirable doctors of medicine may be enrolled.

WOMAN'S AUXILIARY

I desire to draw attention to the excellent work done by our Woman's Auxiliary. Their acquaintance, one with another and with their husband's problems, has developed a solid substantial group of helpers that is wielding a very powerful influence for scientific medicine. In behalf of the Council, I extend to them warmest appreciation for their helpful influence.

COUNTY SOCIETY VISITATION

Your President has enjoyed visiting the county societies. California is an unwieldy State to ad-

minister, and a systematic visitation of our county units is a time-consuming effort; but it is well worth while. A first-hand discussion of our problems profits both the society members and especially the visiting officials. I recommend a continuance of that work.

THE FUTURE

As for the future of organized medicine I have no fear. We shall have our differences of opinion as to policies and leadership, but they will be solved in the American way. In the future, as has been in the past, after free and frank discussion we shall acquiesce in the will of the majority. Any other course is unthinkable.

Finally, your President desires to express his heartfelt appreciation for the support and friendly consideration that have been extended to him, and he requests that the same loyal support be given to President Charles A. Dukes during his coming year of service.

X-RAY TREATMENT OF CARCINOMA OF THE BREAST*

By LYELL C. KINNEY, M.D.
San Diego

DISCUSSION by William E. Costolow, M.D., Los Angeles; Alson R. Kilgore, M.D., San Francisco; Robert S. Stone, M.D., San Francisco.

BETWEEN the enthusiastic claims of some radiologists and the iconoclastic statements of some surgeons there are certain proven facts concerning the value of x-ray in carcinoma of the breast that can now be accepted. Any critical estimate must be based on a careful analysis of what constitutes early curable cancer and what must be considered late cancer, where only palliation can be expected. It is certain that x-ray cannot replace surgery in early operable carcinoma of the breast, and it is equally certain that radical surgery cannot replace x-ray or improve the palliation in late advanced cancer. The important problem is how far, if at all, surgery and radiation should overlap in the treatment of carcinoma of the breast. Early carcinoma of the breast where the growth is limited to the gland, or Group 1, is solely a surgical problem. The radical surgical procedure is well standardized, and the five-year cures have reached a constant level of approximately 75 per cent in well-organized clinics. There is no evidence that radiation, either before or after surgery, will improve this result. There are certain cases that are inoperable because of age or physical condition, where it is necessary to resort to radiation instead of surgery, but the best that can be expected is a 45 per cent survival rate, in contrast with a 75 per cent obtained by radical surgery.

PRACTICAL PROBLEMS

The practical problem arises as to which case is early and localized without extension to the axillary glands. There is approximately a 30 per cent error in the clinical estimate of axillary metastasis by

*Read before the Radiology Section of the California Medical Association at the sixty-seventh annual session, Pasadena, May 9-12, 1938.